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Modified **Citrus Pectin** (MCP)

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THE ANALYST™

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Modified Citrus Pectin (MCP)

Health problems rarely occur in isolation or for obvious reasons

Instead of guessing at what might be wrong and hoping that a suggestion will work, wouldn't you prefer to know what is really going on inside your body, based on the many signs it is giving?

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Pectin is a water-soluble carbohydrate found in ripe fruits such as apples, grapefruits, and plums. It has always been associated with human consumption since it is found in all terrestrial plants and is most concentrated in citrus fruits. Commercial uses include manufacturing foods, drugs, and cosmetics. It is probably best known as the gelling agent used in producing marmalades and jellies.

In modified citrus pectin (MCP), the pH and polysaccharides have been altered to form groups of the simple sugar galactose. In making MCP, the carbohydrate chains are split into smaller pieces. MCP's source is the peel and membrane of citrus fruits. MCP is purportedly useful for anti-metastatic purposes, but not for treatment of primary tumors.

MCP is available in powder or capsule form. For the powder, 5-6 gm is mixed with water or juice and taken 2-3 times per day with meals.

Certain cancer cell types, such as prostate cancer, breast cancer, colon cancer, lymphoma, melanoma, glioblastoma, and laryngeal epidermoid carcinoma, all have specific protein molecules on their cell surface, called galectins. Metastatic cells express significantly more galectin-3 than the original primary tumor cells from which they were derived. Galectins are known for their carbohydrate-binding abilities. These proteins on the cancer cell surface are involved in binding between cells. They play an important role in cellular interactions during the metastatic process, binding to galactose on neighboring cancer cells and oligosaccharides on the surface of normal cells.

Human studies of colon, stomach and thyroid cancers showed that the amounts of galectin produced increased proportionally as the cancers progressed from their early to advanced stages. Higher galectin levels permit greater adhesion of cancer cells and increases the ability of these cells to bind to non-cancerous cells at a distant site where metastasis occurs. It is felt that MCP works by blocking tumor cell surface galectins, so that tumor cells cannot adhere to other cells. This galectin blockage inhibits the aggregation (colony forming) of cancer cells and inhibits adhesion of cancer cells to host cell surfaces.

Please note that it is extremely important to obtain an accurate diagnosis before trying to find a cure. Many diseases and conditions share common symptoms: if you treat yourself for the wrong illness or a specific symptom of a complex disease, you may delay legitimate treatment of a serious underlying problem. In other words, the greatest danger in self-treatment may be self-diagnosis. If you do not know what you really have, you can not treat it!

Knowing how difficult it is to weed out misinformation and piece together countless facts in order to see the "big picture", we now provide simple, inexpensive online access to The Analyst™. Used by doctors and patients alike, The Analyst™ is a computerized diagnostic tool that sits on a vast accumulation of knowledge and research. By combining thousands of connections between signs, symptoms, risk factors, conditions and treatments, The Analyst™ will help to build an accurate picture of your current health status, the risks you are running and courses of action (including appropriate lab testing) that should be considered. Full information is available here.

Modified Citrus Pectin (MCP) can help with the following:

Tumors, Malignant**✓ Prostate Cancer**

MCP appears to slow the PSA doubling time in prostate cancer patients with low levels of PSA. More research involving larger numbers of patients is needed to fully define the role of MCP in prostate cancer treatment. Study responses are additionally compelling, as all study participants are still alive and evaluable for longterm followup almost three years after completion of this study. [International Conference on Diet and Prevention of Cancer May 28 June 2, 1999, Tampere, Finland]

✓ Breast Cancer**✓ Brain Cancer****✓ Colon Cancer****✓ Melanoma****✓ Stomach Cancer****✓ Hodgkin's Lymphoma****✓ Non-Hodgkin's Lymphoma****✓ Thyroid Cancer****✓ Larynx Cancer****KEY**

May do some good

GLOSSARY

Cancer: Refers to the various types of malignant neoplasms that contain cells growing out of control and invading adjacent tissues, which may metastasize to distant tissues.

Carbohydrates: The sugars and starches in food. Sugars are called simple carbohydrates and found in such foods as fruit and table sugar. Complex carbohydrates are composed of large numbers of sugar molecules joined together, and are found in grains, legumes, and vegetables like potatoes, squash, and corn.

Carcinoma: Malignant growth of epithelial cells tending to infiltrate the surrounding tissue and giving rise to metastasis.

Colon: The part of the large intestine that extends to the rectum. The colon takes the contents of the small intestine, moving them to the rectum by contracting.

Gram: (gm): A metric unit of weight, there being approximately 28 grams in one ounce.

Lymphoma: Any tumor of the lymphatic tissues.

Melan ma: A life-threatening type of skin cancer that occurs in the cells (melanocytes) that produce melanin, the pigment found in skin, hair, and the iris of the eyes.

pH: A measure of an environment's acidity or alkalinity. The more acidic the solution, the lower the pH. For example, a pH of 1 is very acidic; a pH of 7 is neutral; a pH of 14 is very alkaline.

Pr state: The prostate gland in men that surrounds the neck of the bladder and the urethra and produces a secretion that liquefies coagulated semen.

Pr tein: Compounds composed of hydrogen, oxygen, and nitrogen present in the body and in foods that form complex combinations of amino acids. Protein is essential for life and is used for growth and repair. Foods that supply the body with protein include animal products, grains, legumes, and vegetables. Proteins from animal sources contain the essential amino acids. Proteins are changed to amino acids in the body.

Stomach: A hollow, muscular, J-shaped pouch located in the upper part of the abdomen to the left of the midline. The upper end (fundus) is large and dome-shaped; the area just below the fundus is called the body of the stomach. The fundus and the body are often referred to as the cardiac portion of the stomach. The lower (pyloric) portion curves downward and to the right and includes the antrum and the pylorus. The function of the stomach is to begin digestion by physically breaking down food received from the esophagus. The tissues of the stomach wall are composed of three types of muscle fibers: circular, longitudinal and oblique. These fibers create structural elasticity and contractibility, both of which are needed for digestion. The stomach mucosa contains cells which secrete hydrochloric acid and this in turn activates the other gastric enzymes pepsin and rennin. To protect itself from being destroyed by its own enzymes, the stomach's mucous lining must constantly regenerate itself.

Thyroid: Thyroid Gland: An organ with many veins. It is at the front of the neck. It is essential to normal body growth in infancy and childhood. It releases **thyroid hormones** - iodine-containing compounds that increase the rate of metabolism, affect body temperature, regulate protein, fat, and carbohydrate catabolism in all cells. They keep up growth hormone release, skeletal maturation, and heart rate, force, and output. They promote central nervous system growth, stimulate the making of many enzymes, and are necessary for muscle tone and vigor.